

Claims

1. Cleaning unit (24) for cleaning of a transport belt (18) for transport of recording media (14, 20) in the transfer printing region (16) of an electrographic printer of copying device,
- 5 with an abrasion element (26) (arranged transverse to the running direction of the transport belt (18) and lying on this) that is set to abrade toner (22) located on the transport band (18),
- 10 and with a toner capture reservoir (30) to capture the abraded toner,
- whereby the capture reservoir (30) can be removed from the printer or copying device
- 15 and whereby the opening of the toner capture reservoir (30) through which the abraded toner falls into the toner capture reservoir (30) can be sealed in the printer or copying device.
- 20 2. Cleaning unit (24) according to claim 1, in which the abrasion element (26) is comprised of ceramic, preferably of an aluminum oxide ceramic.
3. Cleaning unit (24) according to claim 2, in which the initial materials of the ceramic have a grain size that is smaller than or equal to that of the toner particles.
- 25 4. Cleaning unit (24) according to any of the preceding claims, in which the abrasion element (26) is designed as a cuboid-shaped abrasion bar.
- 30 5. Cleaning unit (24) according to claim 4, with a mounting device (38) in which the abrasion bar (26) can be set in four different positions,

whereby the four positions differ from one another by a rotation of the abrasion bar by 180° around its longitudinal axis and/or its transverse axis.

- 5 6. Cleaning unit (24) according to claim 5, in which the mounting (38) has recesses (46, 48) that prevent a contact of the longitudinal edges (36a, 36b, 36c, 36d) of the abrasion bar (26) with the mounting (38).
- 10 7. Cleaning unit (24) according to claim 5 or 6, in which the mounting (38) comprises a receptacle (40) in which the abrasion bar (26) is set with positive fit and a clamping plate (42) with which the abrasion bar (26) is clamped fast in the receptacle (40).
- 15 8. Cleaning unit (24) according to any of the preceding claims, in which a flexible support element (28) for the transport belt (18) is provided on the side of the transport belt (18) opposite the abrasion element (26).
- 20 9. Cleaning unit (24) according to claim 8, in which the support element (28) comprises a felt (32) lying on the transport belt (18).
- 25 10. Cleaning unit (24) according to claim 9, in which the felt (32) is arranged with positive fit in a metal receptacle (34).
- 30 11. Cleaning unit (24) according to any of the preceding claims, in which the toner capture reservoir (30) is electrically conductive.
12. Cleaning unit (24) according to any of the preceding claims, in which the toner capture reservoir (30) is made from plastic.
13. Cleaning unit (24) according to claim 12, in which the toner capture reservoir (30) is produced in a vacuum deep-draw method.

14. Cleaning unit (24) according to any of the preceding claims, in which guide grooves (52) in which a cover (54) can be inserted to seal the toner capture reservoir (30) are formed on the toner capture reservoir (30).
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15. Cleaning unit (24) according to claim 14, in which the guide grooves (52) are formed by down-turned sections of the edge (50) of the toner capture reservoir (30).
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16. Cleaning unit (24) according to claim 14 or 15, with an engagement section (58) at which the toner capture reservoir (30) can be gripped upon its removal from the printer or copying device and that is height-displaced relative to the guide grooves (52), such that it undercuts the inserted cover (54).
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17. Cleaning unit (24) according to any of the preceding claims, in which longitudinal and/or transverse ribs (64, 66) are formed in the toner capture reservoir (30).
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18. Cleaning unit (24) according to any of the preceding claims, with a microswitch that scans whether the toner capture reservoir (30) is correctly arranged in the printer or copier.
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19. Abrasion element (26) for abrasion of toner from a transport belt (18) for transport of recording media (14, 20) in the transfer printing region (16) of an electrographic printer or copying device, which abrasion element (26) is comprised of ceramic, preferably of an aluminum oxide ceramic.
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20. Abrasion element (26) according to claim 19, in which the initial materials of the ceramic have a grain size that is smaller than or equal to that of the toner particles.

21. Abrasion element (26) according to claim 19 or 20 that is designed as a cuboid-shaped bar and that has four longitudinal edges (36a, 36b, 36c, 36d) that are designed to abrade toner.
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22. Method for cleaning of a transport belt (18) for transport of recording medium (14, 20) in the transfer printing region (16) of an electrographic printer or copying device,
- 10 in which an abrasion element (26) (arranged transverse to the running direction of the transport belt (18) and lying on this) abrades toner (22) located on the transport band (18),
- and a toner capture reservoir (30) captures the abraded toner,
- 15 whereby the capture reservoir (30) can be removed from the printer or copying device
- and whereby the opening of the toner capture reservoir (30) through which
- 20 the abraded toner falls into the toner capture reservoir (30) can be sealed in the printer or copying device.
23. Method according to claim 22, in which the abrasion element (26) is comprised of ceramic, preferably of an aluminum oxide ceramic.
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24. Method according to claim 22 or 23, in which the abrasion element (26) is designed as a cuboid-shaped abrasion bar and can be set in a mounting device (38) in four different positions,
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whereby the four positions differ from one another by a rotation of the abrasion bar by 180° around its longitudinal axis and/or its transverse axis.

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